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In the Drawings:

Attached please find one Replacement Drawing Sheet, identified as Figure 1. Textual labels have been provided in reference blocks 1-7. No other changes have been made, and no new matter has been introduced.

Entry of this Replacement Drawing Sheet is respectfully requested.

Attachment: Figure 1

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Remarks

Claims 1-6 are currently pending in the patent application. For the reasons and arguments set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The Office Action dated November 15, 2006 indicated an objection to Figure 1, an objection to the application title, and the following rejections: claims 1 and 6 stand rejected under 35 U.S.C. § 103(a) over Feuerstraeter *et al.* (U.S. Publ. 2003/0058894) in view of "AAPA" (Applicant's Admitted Prior Art) and Ishikuri (U.S. 6,674,681); claims 2 and 3 stand rejected under 35 U.S.C. § 103(a) over Feuerstraeter, "AAPA" and Ishikuri as applied to claim 1, and further in view of Bongiorno *et al.* (U.S. 6,292,045); and claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) over Feuerstracter in view of Werle (U.S. 5,778,002).

Regarding the objection to Figure 1, Applicant submits that text labels are not necessary to provide one of skill in the art an understanding of the drawings, example embodiments or other aspects of the invention. The description of the various portions of the drawings in the specification is clear, with further labeling and/or other representation unnecessary. However, in an effort to facilitate prosecution, Applicant has amended the drawing to include example textual labels as requested by the Examiner. While the amended drawing and any corresponding example embodiments are not limited to these specific labels, the amendments are fully supported by various example embodiments Applicant's specification (*see, e.g.,* paragraphs 0022 through 0030 for Fig. 1). These amendments are characterized in the attached replacement sheet. In this regard, Applicant requests that the objection to the drawings be removed.

Applicant has amended the title in response to the Examiner's suggestion. Applicant requests that the objection to the title be withdrawn.

Applicant respectfully traverses the Section 103(a) rejections of claims 1-6, each of which relies upon the combination of the AAPA and Ishikuri with the primary Feuerstraeter reference, because the cited portions of the references fail to teach or suggest all of the claimed limitations. As acknowledged in the Office Action, the Feuerstracter reference fails to disclose a base chip including a system voltage supply and a system reset, or an interface circuit that runs a LIN protocol. The Office Action then

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suggests that the Feuerstraeter reference can simply use LIN protocols, in view of background discussion in the instant application, with no further explanation as to how Feuerstraeter would achieve such operation or how it could be modified to do so. In as far as the Applicant can understand the effect of the proposed modifications to the Feuerstraeter reference, these modifications would replace Feuerstraeter's WAN/LAN dual communications approach with a dedicated LIN protocol system and, correspondingly, frustrate Feuerstraeter's purpose of selectively communicating over both WAN and LAN networks with a particular port. As is consistent with MPEP § 2143.01 and *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984), such as §103 rejection cannot be maintained when the asserted modification undermines the purpose of the primary reference (Feuerstraeter as asserted here). The Office Action further suggests adding a power on clear (POC) circuit and a system reset (POC circuit 1) from the Ishikuri reference to the primary Feuerstraeter reference, and that this addition teaches the claimed system voltage supply and system reset functions. This POC circuit not only fails to correspond to the claims power supply, it cannot act as such as its function is to work independently from such a power supply. The following more particularly addresses each of these issues separately.

The cited LIN protocols, as combined with the Feuerstraeter reference, fail to correspond to the claimed limitations. As discussed above and as is consistent with the background of the instant invention, the LIN (Local Interconnect Network) protocol asserted as "AAPA" is an automotive master-slave protocol that requires specific functionality that is distinct from both LAN-based and WAN-based protocols in regard to a multitude of functions. LIN systems are simple, small and slow systems used for communicating directly between a master and slave device in an automobile. Furthermore, LIN systems do not operate in an environment involving two or more protocol types, as do WAN and LAN systems (*i.e.*, a LAN at a user's home interacts with a WAN such as the Internet). Specifically, the LIN protocol is an asynchronous transmission protocol in which a receiver sets itself to the clock frequency at which the data is transmitted along the data bus. Data is transmitted from a master node to slave nodes, the slave nodes being able to synchronize themselves with the rate at which the data is transmitted. The master uses one or more predefined scheduling tables in

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communicating with a LIN bus. One LIN frame includes a header and a response; the header is always sent by the master node, and the response is sent by only one dedicated slave. The speed on a LIN protocol network is also limited (*e.g.*, to 20Kbit/second) to limit electromagnetic interference (EMI), and there is no collision detection.

Systems using LIN protocols are drastically different from WAN and LAN-based system on a variety of fronts. WAN and LAN-based systems, as is consistent with the discussion in the cited Feuerstraeter reference, and WAN and LAN networks communicate using packets that each have a header that marks the beginning of the packet, a payload that includes information carried by the packet, and a trailer to mark the end of the packet. Such WAN and LAN systems do not and could not operate in a master-slave environment, and could not carry out packet-based communications with the header and response approach to master-slave communications required by the LIN protocol.

In addition, WAN and LAN based networks, and particularly the former, operate over large distances that often exceed thousands of miles, and are further geared for high speed, often exceeding 100Mbit/second and continually increasing (*see, e.g.*, paragraph 0005 in the Feuerstraeter reference). In contrast, the LIN-protocol is a low-power and low-speed protocol used in a small closed (vehicle) system, and uses specific master-slave communications respectively involving a header and response.

In consideration of the above discussion regarding LAN and WAN networks as distinguished from LIN-protocol networks, the Office Action has failed to show how the LAN and WAN-based circuits in the cited Feuerstraeter reference could operate using a LIN protocol. Applicant has reviewed the Feuerstraeter reference and cannot ascertain how the proposed combination would or could correspond to the claimed limitations; no portion of the Feuerstraeter reference mentions the LIN protocol or describes any aspect of the indicated system that could operate with protocols other than WAN or LAN protocols. Further, the portions of the Feuerstraeter reference cited by the Examiner do not correspond to the claimed limitations as suggested. For example, the Feuerstraeter reference operates in a dual-protocol environment involving the use of both WAN and LAN protocols; LIN systems operate using only the LIN-protocol.

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In addition to the above incompatibilities between Feuerstraeter's LAN and WAN
devices and LIN-based systems, various other portions of the references cited in the
Office Action do not correspond to the claimed limitations as suggested. For example,
item 340 in FIG. 3 of the Feuerstraeter reference asserted in the Office Action as a
"system base chip" is in fact a "Physical Media Attachment layer" (PMA layer) that
holds serializers that respectively convert parallel data to serial data and serial data to
parallel data for LAN and WAN applications. The Office Action has not shown, and the
Applicant cannot ascertain, how the PMA layer 340 could function as the system base
chip in a LIN-protocol environment, as suggested in the Office Action. The Office
Action has further failed to show how the PMA layer 340 carries out monitoring
functions in item 700 in FIG. 7 of the Feuerstraeter reference; these monitoring functions
are not discussed in connection with the PMA layer 340 or with any related functions
thereof (*i.e.*, the Feuerstraeter reference does not teach the claimed limitations as
arranged).

As relevant to the Ishikuri reference, the POC circuit 1 and corresponding system
reset functions do not correspond to either the claimed system voltage supply or the
system reset. Generally, POC circuits operate independently from a system power
supply, and provide functionality that is independent from the same (*see, e.g.*, the
Abstract and background of the Ishikuri reference. For example, as described at column
5:52-55 in Ishikuri, the POC circuit 1 includes a "detection voltage source" that does not
correspond to a system voltage supply, which is separate from the POC circuit 1 (*e.g.*, the
POC circuit 1 conducts a system reset when the system power supply drops below a
certain voltage level as described at column 5:57-60). In this regard, not only does the
POC circuit 1 fail to correspond to the claimed system voltage supply, it requires and
operates with a separate system voltage supply and thus requires external functionality,
teaching away from the claimed limitations. For example, aspects of various claimed
limitations of the instant invention are directed to a self-contained unit that does not rely
upon external components such as a microcontroller and system voltage supply (*see, e.g.*,
paragraphs 0002-0011).

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Regarding the alleged teaching of an interface circuit (at paragraphs 0044 and 0047 of the Feuerstraeter reference), the Office Action fails to indicate which portions of these paragraphs, and of the corresponding Figure 4, are asserted as the interface circuit. Based upon Applicant's review of these paragraphs, a data rate detection unit 420 detects an incoming data stream, but does not appear to pass on any received or transmitted bytes, and further is limited to operation with a WAN or LAN protocol.

The cited combination of references also fails to correspond to various limitations in the dependent claims. However, in view of the discussion above as relevant to independent claim 1, from which each of the dependent claims depend, the rejections of the dependent claims are accordingly improper (if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

In view of the above, the Section 103(a) rejections of claim 1-6 are improper and Applicant requests that they be withdrawn.

Applicant further traverses the Section 103(a) rejections because the Office Action failed to cite any evidence of motivation in support of modifying the Feuerstraeter reference to operate in a LIN protocol environment, or to modify the PMA layer 340, which functions primarily as a serial/parallel converter, to include a system voltage supply, system reset and monitoring functions. As discussed in the background of the instant application, previous circuits operating on LIN protocols experience challenges relative to functional requirements, such as a standard interface cannot be used (requiring a specially-adapted interface), and that a specially adapted microcontroller be provided as an external component. Essentially, the Office Action relies upon the specification of the instant invention, citing background discussion therein and the various problems associated therewith, together with other cited references that fail to comprehend and address the aforesaid problems, and proposes to modify the prior art in view of the instant invention and the problems that it overcomes. That is, the prior art does not teach or suggest any solution to the problems elucidated in the background of the instant invention; only the instant invention does. The Office Action thus fails to provide any evidence suggesting that the primary Feuerstraeter be modified, or and fails to show how the proposed modification could function (*e.g.*, while allowing the Feuerstraeter reference

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to operate in its intended LAN/WAN environment). Applicant submits that this hindsight reconstruction of the prior art is contrary to the M.P.E.P. and the requirements for establishing a *prima facie* case of obviousness.

In view of the remarks above, Applicant believes that the rejections have been overcome and that the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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Attachment: 1 Replacement Drawing Sheet

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